Volume Title: National Economic Planning

Volume Author/Editor: Max F. Millikan, editor

Volume Publisher: NBER

Volume ISBN: 0-87014-310-7

Volume URL: http://www.nber.org/books/mill67-1

Conference Date:

Publication Date: 1967

Chapter Title: French Planning

Chapter Author(s): Charles P. Kindleberger

Chapter URL: http://www.nber.org/chapters/c1426

Chapter pages in book: (p. 279 - 303)

French Planning

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This is not a technical paper on French planning. It is assumed that the organizers of this conference were informed and rational when they assigned this topic to what Ragnar Frisch is said to call a "conversational economist." The paper, then, concerns the history, description, delimitation, evaluation, and generality of French planning. Monosyllabically, it deals with what French planning has been, is, and is not; how well it works; and if it could work out of France. French planning is very much *au fait,* so that accounts of its development and present state abound. These aspects will be dealt with minimally. Primary interest attaches then to how planning differs from other aspects of economic policy, to what extent it has been responsible for the remarkable postwar growth of France, and whether it is capable of being transplanted to other jurisdictions.

The Development of French Planning

The origins of French planning lie in the wartime preparation of French emergency needs for overseas assistance after liberation. With liberation achieved, the program was extended, and a special department set up in the Ministry of National Economy. But the requirement of the French mission in Washington for a more systematic statement of governmental intentions and requirements resulted in the consolidation of scattered agencies into a central General Planning Commissariat, in January 1946, under the direction of the chief Washington negotiator, Jean Monnet. The first publication of the commissariat was written in English as well as in French, with the Congress in mind: *Statistical Review of the Economic and Financial Situation of France at the Beginning of 1946.*

NOTE: I am grateful for detailed comments on an earlier draft by Michael Lipton, John Sheahan, and A. Van Nimmen.

A year later, the first four-year plan, covering 1947–50, was adopted. With the change in United States aid from piecemeal to systematic, under the European Recovery Program, the First Plan was extended to 1952 to coincide with the coverage of the Marshall Plan.

The First Plan had a slogan, "Modernization or decadence" (Massé, 1961, p. 211),[1] and chose to concentrate expansion on six "basic" sectors: coal, electricity, steel, cement, agricultural machinery, and transportation. At the time of the extension of the initial four-year period, two further industries were added: fuels and fertilizers. Coal, electricity, and railroad transport were nationalized and could be expanded from within. The others were fairly well concentrated and implicitly threatened with nationalization. In steel, capital for expansion was provided from counterpart funds and other government sources (as in other industries) but on condition of mergers. Government intervention was *ad hoc* in design and in implementation; the emphasis on expansion, modernization, efficiency, and modern management which characterized this intervention, however, was systematic.

The Second Plan, organized with a gap of one year, covered 1954–57, and rested on a more systematic basis in national accounting. The emphasis was still on expansion, but this was now extended from the eight sectors to the economy as a whole. The "basic sectors" of the First Plan were followed by the "basic actions" of the Second (Hackett and Hackett, 1963, p. 27): research, improved productivity, marketing reform, assistance to equipment, and training, that is, programs to produce more, but under competitive conditions of quality and price. The threat of socialization had ended, and the Planning Commissariat was transformed into an agency for forecasting and economizing (Despres, 1963, p. 44). Goals were laid down overall and by sectors, including housing. Most of these were overfulfilled, though not all (machine tools). But the expansive pressure led to price increases and balance-of-payments deficits. Exports grew steadily, but imports grew at a greater rate. The Pinay government chose growth rather than maintenance of reserves, which were allowed to run down virtually to zero by 1957.

The Third Plan ran from 1958 to 1961 and was addressed to growth and the correction of the balance of payments. The need to reduce costs was underlined by the prospective entry into force of the Common Market. The pressure for expansion was maintained, with an increase of 20 per cent projected for the four years (manufacturing, 33 per cent; exports, 70 per cent). Restoration of the balance of payments was to

[1] Full bibliographic details are given in the list of references at the end of this paper.

be achieved in six years. The critical position in internal and external balance meant that the leadership in economic policy in France in 1958 was assumed by monetary and fiscal policy, in which the Planning Commissariat had little voice. Quasi-devaluation occurred in the summer of 1957. The Fourth Republic ended in May 1958, and with the entry into force of the Fifth came more effective authority in the monetary and fiscal field. The 5 per cent rate of expansion sought by the plan gave way to a mere 1 per cent. In December 1958, the Rueff program provided for devaluation of the franc, a cutback of budgetary expenditure, and adjustment of the tax system. The balance of payments righted itself in nine months, rather than six years, and set the stage for a new advance. In 1960, an "interim plan" was adopted for the years 1960 and 1961, to make up for the slowdown of 1958 and 1959. The over-all rate of increase was set at 5.5 per cent per year (7.4 per cent in industrial production). Rapid increases were achieved.

In the Fourth Plan, over the years 1962–65, the rate of expansion was again set at 5.5 per cent a year, raised from the original experts' target of 5 per cent. Whereas earlier plans had been called plans of modernization and equipment, this was one for economic and social development (Perroux, 1963, p. 17). The economic development involved the same prescription as before: expansion, full employment, maximum efficiency, and hence no reduction in working hours. The social side involved heightened pressure for housing and educational capital and attention to urban renewal. In addition, problems of regional balance were explicitly addressed in the plan, to push particularly those regions like Brittany and the Central Massif where industrialization has lagged.

The Fifth Plan, covering 1966–70—five years this time, rather than four—is still in process of formulation as this is written. Newspaper accounts indicate that the projected rate of growth is reduced from 5.5 per cent a year to 5, to prevent overheating of the economy. In five years the increase in over-all production would be 27 per cent, that in private consumption 24 per cent, in public expenditure 39 per cent. Within the total of public expenditure, housing and military equipment outlays were projected at increases of 34 per cent; schools, hospitals, telecommunications, roads and other public projects at 54 per cent. M. Massé's report called for an increase in autofinancing of private investment out of profits—from 60 to 70 per cent; a maintenance of the work week; and an increase in the prices of public services to allow reductions in governmental subsidies (*New York Times,* November 25, 1964).

The Planning Process

Descriptions of the methods of French planning have been provided in great detail (Hackett and Hackett, 1963; Bauchet, 1964, etc.). For our purposes it is sufficient to observe that a given plan begins with an over-all macroeconomic rate of growth agreed between the Planning Commissariat and the Treasury, the economic staffs of which overlap. The Planning Commissariat is divided into three horizontal divisions: Economics, Finance, and Regional, plus 10 vertical sections: Agriculture, Energy, Water, Transport, Industry, Fisheries and Artisans, Construction, Housing, etc., Urban Development, Overseas Territories, and earlier, Algeria. The total permanent full-time staff is small, consisting of no more than 35 professionals, and 140 in all.

For the rest, the plans are elaborated by a series of commissions, which used to meet once for each plan, and now convene annually. The horizontal commissions were two for the Third Plan and five for the Fourth, dealing with General Economics and Finance, Manpower, Productivity, Research and Regional plans. The vertical commissions have expanded from seven in the First Plan, to seventeen in the Third, and twenty-two in the Fourth: Agriculture, Agricultural and Food Industries, Artisans, Buildings and Public Works, Chemicals, Culture and Arts, Energy, Housing, Nonferrous Mines and Metals, Overseas Territories, Oil, Post Office and Telecommunications, Radio and Television, Sanitary and Social Equipment, School, University, and Sport Equipment, Fisheries, Steel, Trade, Transformation Industries, Transport, Tourism, and Urban Equipment (Hackett and Hackett, 1963, Appendix III). The commissions organize working parties to deal with specific problems as they see fit: Under the Fourth Plan that on Transformation Industries had sixty such parties. Some 3,000 persons served with commissions and working parties on the Fourth Plan.

In addition to the commissariat and the commissions, which actually set out the targets and means of their achievement, the plan is submitted to a number of consultative bodies; to the Economic and Social Council, which was provided for in the constitutions of the Fourth and Fifth republics, and is made up of almost two hundred representatives of various interest groups and intellectuals; and to the High Planning Council, composed of ministers of state and heads of various national bodies, such as the chamber of commerce, the employers' federation, the trade union groups, and so on. This numbers sixty. The Economic and Social Council has an Investments and Planning Section which is now brought in early on the choice of the growth rate. Apart from the First and Third plans, which were adopted by administrative order, the plan is submitted to Parliament for ratification. In the Fourth Plan, the debate was a heated one and resulted both in some modification in favor of regional projects and agricultural interests and a change in the order of events. Submission to the National Assembly formerly took place at the last stage; the Fifth Plan, however, was submitted before it had been finally determined, to permit of greater democratization in the planning process.

The planning begins, as noted, with an agreed over-all rate of growth, chosen from among a series, such as 3, 4.5, 6 per cent. After consultation with the Investment and Planning Section of the Economic and Social Council, a growth rate is adopted. At this stage, the government adds directives covering major objectives—balance-of-payments or regional equilibrium, for example—or education, housing, urban redevelopment, etc. The result is a government directive to the Planning Commissariat. Then the commissions within the commissariat go to work to prepare detailed and consistent targets by sectors and industries. Used in the process are national accounts for the final year of the plan estimated by the Services des Études Économiques et Financières (SEEF) of the Ministry of Finance, investment and labor requirements of the horizontal commissions, assisted by detailed industry studies of such organizations as BIPE (Bureau d'Information et des Prévisions Économiques), income elasticities of demand, as calculated by CREDOC (Centre des Recherches Économiques et de Documentations sur la Consommation), the input-output tables of INSEE (Institut National de Statistiques et Études Économiques). Forecasts are made for those elements in the process as are subject to no or only to limited control, such as exports, the prices of imports, the rate of technical progress, etc. End-year targets by sectors and industries are broken down and built up again by an iterative process to obtain consistency, shuttling back and forth between the horizontal and vertical commissions and working parties of the commissariat and the commissariat staff itself. Moving from the preliminary projections with their expression of political choices to the provisional targets for each sector which are to be debated by committees, and back to the writing of a coherent overall plan is a time-consuming one, using up in present practice a minimum of three years (Wickham, 1963, p. 342).

Implementation

A consistent plan does not ensure implementation, even though industry, agriculture, employers and labor have been consulted in its design.

French planning is indicative, rather than imperative, as is discussed below; that is, it shows the directions in which the economy ought to go, rather than providing specific targets for individual plants and firms. The mechanism for achieving the plan is usually said to be twofold; on the one hand, two-fifths of national income and half of gross investment, at the peaks, have been represented by the national government (public enterprises, 11 per cent of net national product and 30–35 per cent of gross investment); on the other, national savings flow to a considerable extent through government hands, taking into account the nationalization of the major commercial banks and insurance companies and the mobilization of savings deposits through the Caisse des Dépôts et Consignations (to make no mention of the Crédit Foncier and the Crédit Agricole). In addition, the counterpart funds developed by U.S. aid in the early days of the plan were invested by the government through specially created Caisses de Modernization. The private capital market functioned poorly; so firms wishing to expand were dependent upon reinvested profits (autofinancing as the French call it) and government allocations. In addition to these means of ensuring compliance, government policy more generally could be brought to bear on individual firms through the administration of price control, tax measures, and in some cases affecting especially foreign investors, licensing approval. In particular cases, a firm would enter into a quasi-contract with the Ministry of Finance and the Ministry of Industry, an exchange of letters in which the firm would set out a statement of its intention to invest, and the ministries would express their approval and inform the firm of dispositions taken by them in its favor (OECD, 1962, p. 4).

There is some doubt about these means of implementation, however. In the first place, nationalized industries, and even government departments, have not been wholly submissive to the plan. The *force de frappe,* or nuclear deterrent, of the French was not provided for in early versions of the Fourth Plan. The Planning Commissariat's opposition to the tunnel under Mont Blanc and preference for the cheaper Fréjus alternative under Mt. Cenis was overridden (Bolle, 1963). Parliamentary acceptance of the plan does not guarantee voting the necessary credits in the field of public works, which have been considered too important to be fixed rigorously over extended periods of time (Eklund, 1964).

Nor do the nationalized industries help that much. Some of them guard their autonomy better than firms in the private field (Bauchet, 1962, p. 141; Sheahan, 1963, p. 202). The threat of nationalization has been said to have been more potent than nationalization itself (Sauvy, quoted by Despres, 1963, p. 23). Despite its dependence on the state for capital, Régie Renault, its director has asserted, is administered like a private enterprise (Vernier-Palliez, 1956, p. 95), and even a French governmental publication, in calculating the proportions of public investment controlled by the state, "such as those for public works," excludes "certain nationalized enterprises in the competitive sector" (Ambassade de France, 1963, p. 12). The public corporations, especially in railroads, aviation, and electricity, have been among the leaders in increasing efficiency and improving technology. Unlike public corporations in many less developed countries, which have a weakness for wasteful investment programs, they have pioneered in the calculation of efficiency conditions for pricing and investment. To a certain extent, their calculations have become those of the plans. But it is a mistake to regard French planning as using nationalized industries to carry out its designs. Here, as in private industry, where it does not permit itself to be persuaded, it must persuade as much as command.

Even in the field of private business, the plan's powers declined somewhat between 1958 and the 1963–64 inflation with its profits squeeze. Autofinancing picked up and the private capital market as well. Whereas public funds and bank credits accounted for 61 per cent of gross investment of the steel industry under the First Plan, the proportion fell to 11 per cent under the Third (Hackett and Hackett, 1963, p. 169). Control of the supply of capital worked effectively when the economy as a whole was expanded through demand inflation, investment was highly profitable, and savings were in short supply. With cost-push inflation, there may be some profit squeeze in some lines, which would increase the importance of capital availability in the hands of government, but reduce the incentive to expand; and where expansion is maintained at a high pace, with ploughed back profits or access to foreign funds, as in automobiles, the Planning Commissariat is beginning to have doubts that expansion *à outrance* is an optimal policy.

The central fact of the implementation of French plans, as we shall see presently, is that it has not been doctrinaire.

The Need for French Planning

Justification for French planning has been found by different people in a number of aspects of the French economy: in ineffective macroeconomic policy (Wellisz, 1960); in the muddle of democracies with their permanent danger that government will express contradictory preferences (Wickham, 1963, p. 338); in the need for information on the part of French businessmen (Johnson, 1963); in the failure of the price system; and in the need to convert businessmen from restrictionist to expansionist attitudes.

The notion that planning has been a substitute for adequate macroeconomic policy finds particular justification in international economic relations. With an overvalued exchange rate from 1950 or so to 1958, planning called for expansion of exports, and was supported by a variety of devices: special access to credits, special provision of exchange to meet accessory expenses of exporting, credit insurance, insurance against changes in domestic prices, tax adjustments, advances for the purchase of raw materials, concessions on price controls, governmental agreements with industries including, among other aspects, remission of the value-added tax on exports, and the use of funds to advertise abroad (André, 1964). The adoption of a new exchange rate and a monetary and fiscal policy of restraint at the end of 1958 (aided by the end of the Algerian conflict) eliminates much of this Rube Goldberg disequilibrium mechanism. As already noted, the restoration of the balance of payments which the Third Plan thought would take six years was accomplished in nine months.

Outside foreign trade, however, the contention does not stand up. It is true that monetary and fiscal policy have not always been coordinated with planning; it is not clear how annual budgets could be made to conform to a four-year plan originating three years in advance of the initial plan year. But it is possible that planning created more problems for monetary and fiscal policy than the reverse. The rate of expansion in the Second Plan has been mentioned, and lately under the Fourth Plan the pressure on the labor supply, on wages, and hence on prices has been so great as to call for the stabilization measures of the Treasury of September 1963. An initial impression was that it was lucky that the Economic and Social Council had raised the sights of the Planning Commissariat from 5 to 5.5 per cent growth per year, since the higher rate of expansion enabled the French economy to absorb the Europeans returning from Algeria in substantial numbers in 1962 and 1963. By 1963 it appeared that the Planning Commissariat had underestimated the labor requirements of the French economy, which was drawing increasing numbers of North Africans, Spaniards, Portuguese, and Italians, which the plan had not counted on, but was still reflecting sharply rising wages; or perhaps it has overestimated the fluidity of the French labor market and the readiness with which labor could be drawn from areas of excess population like Brittany.

That French government has a propensity to exhibit a muddle is well known and indeed the subject of a thick monograph written before the record of French postwar growth had been firmly established (Baum, 1958—but written in 1952, 1953). The plan may, moreover, have gone some distance to clarify national objectives, as Sheahan puts it, for the public sector as well as for the private, even if the public sector did not always submit to the wishes of the Planning Commissariat. But planning is to be distinguished from *dirigisme* which prevailed in the interwar years—the steady interference of public decisions in response to day-to-day difficulties without systematic, long-term elicited aims (Wickham, 1963, p. 336). The interventions of the authorities are substantial and increasing, and forecasting at a minimum is needed to give them coherence and rationality (Swann and McLachlan, 1964, p. 87).

But while government might perform in an incoherent and contradictory way in the absence of a plan, the real danger as seen by most French observers was in the failure of the price system. Sometimes it was thought that the price system produced the wrong amount, whether too much or too little capacity, as separate firms, making their own forecasts of global demand, followed independent investment programs. In the initial stages, it was thought that capital was scarce and that any investment in excess capacity would be a serious waste (Despres, 1963, p. 27). Later, the fear was general among French economists that private enterprise and the price system tended to lead to underinvestment. This view was subsequently abandoned without modifying the basic distrust of anarchic competition (Wickham, 1963, p. 337). More recently, the European Economic Commission and the French officials which have made representations to it have renewed the view that private pricing leads to excess investment and waste through unemployment. It is, of course, possible to reconcile these views with the position that the price system produces too little investment in noncompetitive industries—through a tacit mutual acceptance of inertia by existing firms—and too much in competitive. In these circumstances, planning calls simultaneously for more competition and less, with each therapy applied separately. It is hard to find an explicit statement of this point of view, but it may well be implicit in the contradictions that abound in writing on the subject.

Among those who believe that the price system fails to produce the right level of investment, the plan is regarded as market research or, sometimes, merely as information. The exigencies of the market and of capitalism demand an informed economy, and a discussed economy, though not a concerted economy (Perroux, 1962, pp. 14–17). In a dynamic economy, large cost-reducing innovations must be based upon a view of the rate of growth (Malmgren, 1961). Uncertainty depresses investment (Johnson, 1963, p. 18).

The record of French planning, however, does not altogether confirm the view that private myopia will depress investment. The First Plan underestimated the growth of demand in electricity, which above other fields should lend itself to accurate forecasting. The Second, using improved methods, such as linear programing, was overly timid: Four-year targets were reached in two years. Concurrently, the Planning Commissariat tried to repress expansion in steel (Sheahan, 1963, p. 184). The record of Charbonnage de France and of the European Coal and Steel Community in coal is one of overestimating demand and the need to expand capacity. In automobiles, the French Plan and the European Economic Community have both been bearish. Wickham states that planning is exhaustive market research, which supports rather than replaces the market mechanism, and thereby generally increases the inducement to invest, although it should probably dampen it in some sectors such as automobiles, steel, wheat, soap powders, shipbuilding, etc. (1963, p. 337).

This is a neuralgic issue, whether the planners replace or supplement the price system, and whether the information or market research provided by the plan increases or depresses the rate of investment which would otherwise obtain. Information removes uncertainty, but collusion removes it more thoroughly, either collusion with government, or with other firms. Simple forecasting—the "onlooker effect" as Frisch puts it (1962, p. 250)—is not enough. To achieve credibility, the forecasts must be confirmed. This encourages the quasi-contract or tolerance of the cartel. It is the great virtue of French planning that it has left individual firms free to experiment, innovate, overexpand and underexpand by restricting its planning to indications rather than commands. Its further virtue is that it has failed to eliminate uncertainty in foreign trade, an area where market research and the provision of information function ineffectively. The uncertainty arising from the openness of the French economy has been a vital element in the success of planning.

If planning is not compensation for faulty monetary and fiscal policy, nor shadow-pricing required by the failure of the price system, nor coherence and rationality in governmental, multifarious, previously inchoate intervention, nor pure market research and the provision of information on demand, what is it? There is room for the possibility that French planning has not been immutable, and that its original essence, of which it retains a large measure, is "promotion," or "pressure for expansion."

In a previous comment on the subject, I suggested that: "Knowledge of income and industry projections and faith in the inevitability of expansion are communicated to firms at intra- and inter-industry meetings. This is perhaps the most powerful effect [of French planning], and one which has a faint resemblance to a revivalist prayer meeting" (Kindleberger, 1963, p. 155).

This passage has been chided for its "faintly derisive tone" (Nossiter, 1964, p. 201), but it is interesting to note an echo of the same note in the most straightforward description of the plan, without a trace of irony: "People have to be convinced, one is tempted to say 'converted' " (Hackett and Hackett, 1963, p. 368). Later, the Planning Commissariat occasionally had fears that its pressure for expansion had overreached itself and that certain industries were going too far, threatening "overequipment," waste, and risks of underemployment (Massé, 1961, p. 18).

The point to note is that French planning is not an exercise in programing or optimizing, but the provision of a flexible framework which is subject to change and adjustment on an *ad hoc* and empirical base. The standard cliché is that French planning is indicative, rather than imperative (to which Streeten adds that British planning is subjunctive, 1963, p. 1164). Bauchet prefers the term "flexible" to "indicative" (1964, p. 24). Massé insists that it should be "active" (1962, p. 6; 1963, p. 15). French economic thought is essentially interventionist, and this characteristic raises the most important issues for economic policy. When the French intervene among domestic firms in their own economy, it is of course their own concern. Readiness to act on a case-by-case basis affecting United States business in France poses larger international questions. But a still more important choice is required if the French attempt to export this interventionist-at-the-particular-level philosophy to the Common Market, or block progress on the Kennedy Round tariff reductions under GATT. Discrimination has been defended as economic by Frisch (1957), and in the case of French planning by Marczewski (1962). There can be no doubt of the need to intervene in particular cases on occasion: The first request to GATT for an exception to the most-favored-nation clause came from the United States, which wanted to discriminate in favor of the Pacific trustee islands; President Kennedy intervened in the U.S. Steel price increase of May 1962, and Secretary Anderson of the Treasury telephoned the Ford Motor Company to request them to postpone or halt the purchase of the minority shares of Ford of Dagenham in the autumn of 1960, backing down, however, when he learned that the arrangements had gone too far ahead to be called off. But here the rule is nondiscrimination, and particular intervention occurs only in exceptional cases.

French economic officials "reject the inhuman fatalism of 'laisser-faire, laisser-passer' " (De Gaulle, 1963, p. 3), and point out the need for "regulating the exercise of economic freedom" (Giscard, 1963, pp. 3, 8). Objection was expressed in August 1962 to the action of General Motors in closing down a Frigidaire plant in Gennevilliers and discharging 685 workers because of the competition of imported refrigerators from Italy, and to Remington Rand's action a month later in dismissing 800 workers at Caluire, near Lyons, as it concentrated its manufacture of portable typewriters in the Netherlands. Applications to invest in France by Chrysler (Simca), Libby, McNeill & Libby (canning), and General Electric (Machine Bull) were all granted, but only after discussion and adjustment of the business arrangements in the latter two cases (Johnstone, 1964; Swann and McLachlan, 1964, p. 99). Other European countries, to be sure, are not above concern in these matters: viz., the Parliamentary clamor in Britain over the Ford purchase in 1960 and the Chrysler acquisition of a minority holding in Rootes in 1964, and the unsuccessful Italian intervention at the EEC to establish rules of competition for American automobile firms operating inside the Common Market. Automobiles present a most interesting case study for future observation of French planning, the Common Market, European Free Trade Association–EEC competition, and the treatment of American direct investment. It will be particularly a testing ground for the principles of customs union and nondiscrimination if the thirteen or so major companies in Europe (four each in Britain, France, and Germany, and one in Italy, to say nothing of the smaller companies in Britain, the Common Market, and EFTA) were to be reduced by competition to three or four, as in the United States market—some of them, perhaps, the same in the two continents.

French justification of special attention to foreign investors is that their sources of capital lie outside the scope of the control of the plan, so that the major instrument of control of French firms, capital allocation, is inapplicable. This overstates the matter. In most direct investment, a great deal of the capital is acquired locally in any event. Moreover, as already noted, the effectiveness of the state's domination over the capital market has varied, declining considerably from its initial substantial height until it rose again under the recent profit squeeze. From this side of the Atlantic it appears that there is more concern for and attention to American firms seeking to establish operations or interests in France than for European firms. There seems to be a disposition on the part of French ministries to regard European competition as suitable in general because of the comparable size of the firms concerned, but American firms as requiring special attention because of their size and power (see the reference by Minister of Finance Giscard d'Estaing to United States firms as "monsters" in *Figaro,* October 17, 1963). Case-by-case intervention is therefore justified as the rule, rather than the exception.

Rapid German economic growth ostensibly based on the operations of competitive markets has made a substantial ingredient of intervention, as Reuss points out (1963), and Wallich before him (1955). This has taken the form largely of fiscal policy, though there are those who attribute an important influence to anticartel policy (Sohmen, 1959). (It is interesting, incidentally, to observe that French policy under the plan favored making bigger firms out of smaller, through mergers, especially in steel and under the First Plan, whereas German anticartel policy, at least under the Allied occupation, and to a degree later, made little ones out of big ones.) But there is this important distinction between intervention through fiscal policy and that through direct contact: The former still operates by means of the invisible hand; the latter, despite the insistence upon an indicative rather than an imperative plan, comes close to ordering. The Citroën plant in Rennes, the Usinor plant in Dunkirk, the electronics plant in Brest, and especially the allocation of quotas in oil come close on the domestic front to the same sort of intervention that seems to apply to United States firms.

It is in the international economic area that French planning faces its most serious dilemma, and one apart from income policy in which it is far from clear what the answer may be in theory and practice. Marjolin (1962) and Massé (1961, p. 18) believe that the logic of planning requires its extension to the Common Market. "Arguments that are valid on a national scale are equally valid on the scale of a group of countries." "Planning, including programme planning, presupposes an economy whose relations with the outside world are limited or can be restricted, should the necessity arise" (Marjolin, 1962, p. 12). Swann and McLachlan believe that the French propose to extend planning to the EEC (1964; see also Hackett and Hackett, 1963, pp. 323 ff.). The Fourth Plan's success has been threatened in different ways by inflation at home and inflation in Italy. The Baumgartner-Pisani "plan" in agriculture, while it is tantalizingly vague on detail, appears to call for planning or programing of production and distribution in agricultural staples on a two-price system, one positive and high and the other zero, on a world basis. Staff members of the Food and Agriculture Organization are beginning to talk of worldwide "programing" for primary commodities (Royal Institute for International Affairs, 1963, p. 1), though in discussion this sometimes comes down to little more than better information, such as the commodity study groups have been providing. It might be possible to contemplate an optimum planning area, analogous to the optimum single-currency or fixed-exchange-rate areas envisaged by Mundell (1961) and MacKinnon (1963). It is worth noting, however, that the Mundell and MacKinnon criteria for a fixed-exchange-rate area differ: Mundell chooses the region within which factor movements are substantial and outside of which they decline sharply, whereas MacKinnon is interested in the openness of the economy, the extent of its trade, and thereby the extent to which it is possible for reductions in the exchange rate to impose level-of-living cuts on factors by means of the money illusion, i.e., rising prices with unchanged money incomes. On Mundell's criterion the optimum area is less than, say, Canada; on MacKinnon's, larger. In planning, the optimum area might again be the region within which factors move, which would make France too big and underline the difficulties faced by France or Britain in planning to correct regional disequilibrium. Or it might be an inward-looking Common Market with a high common external tariff and controls over foreign capital.

Against this is the view that competition from imports was vital in preventing planning by the planned from turning into a cartel. In steel, the resistance of small enterprises was "successfully attacked by the ingenious device of exposing the industry to international competition" (Sheahan, 1963, p. 174). "Foreign competition has proved an essential spur to prevent agreed planning from facilitating the cartelization of the whole system" (Wickham, 1963, p. 341). In a closed economy there was the great risk that the common background of businessmen and government officials and the view of both that companies in the same business shared common interests to which antagonism and competition were foreign would cause targets for industries to become targets for firms (Sheahan, pp. 180, 181; Wickham, p. 342), and planning to become an impediment rather than a spur to progress. Everything here depends on temperament. In the Japanese ten-year plan of 1960, the announcement of the 1970 target of doubling industrial capacity led to serious inflation as each highly aggressive competitor responded to the news by doubling his capacity in a single year. In France, the danger as seen by Sheahan and Wickham is that the target for all would become the target for each, on a fixed-shares-of-the-market basis. The open economy thus either disrupts planning by introducing uncertainty into an area where the need is for market research, information, reduced uncertainty and risk, or prevents planning from turning industry static by requiring the individual firm to go beyond maintaining a share of the market and working to innovate, undertake extra investment, and to hold down costs and expand through price competition.

The French dilemma is illustrated by the fact that most officials come out strongly on both sides of the issue. Massé "readily concedes the tonic value of competition," but holds it is "essential to be able to recognize the dividing line between incentive and waste" (1961, p. 18). Wickham has the Common Market providing checks and balances on one page (1963, p. 341) and making planning difficult on another (p. 347).

The other major dilemma is between planning and macroeconomic policy. It has already been mentioned that planning is not a substitute for adequate macroeconomic policy, except perhaps in the balance-of-payments area. Sound macroeconomic policy may contribute more to planning than contrariwise. The dilemma is this: If planning is to a large degree promotion, or body-English, to sell expansion, and if policing the planning works best in an overheated economy where the power to withhold capital is effective because of a profits squeeze, and mistakes in planning are eradicated by growth in demand, then planning means inflation. Inflation may be stalled off by extra increments of labor on which the planners did not count—*pieds-noirs,* Algerians, Portuguese, Italians, and Spanish, together with women out of the house, farm workers off the farm, and clerical labor out of the inefficient distribution sector. This is fortuitous. High rates of growth can be obtained in a dual economy, where the archaic sector shrinks as resources are transferred to the modern sector. But once the availability of incremental resources for the modern sector dries up, the rate of expansion must slow down, plan or no plan.

Maddison holds that French growth was the result of management of demand and had little or no relationship to planning (1964, pp. 151–53). In his system, demand is all. There can be no doubt but that the maintenance of high demand does encourage workers to leave the farm, or to come out of the household, and that to this extent, demand creates its own supply. It is also possible that planning straightened out some kinks in the supply curve. But the contention of this paper is that French planners underestimated three aspects of over-all supply, which largely canceled out: (1) the resistance of large pockets of domestic labor in regions like Brittany, among housewives, etc.; (2) the mobility of international labor from southern Europe and North Africa; and (3) the increases in productivity implicit in modernization and in the shrinkage of artisanry and small-scale peasant farming. The easy gains from the latter two sources of growth have now been harvested, however, and unless the wave of additions to the labor force from the postwar baby boom makes them good, macroeconomic pressure will find itself exerted against a rising marginal cost curve, instead of a surprisingly flat one.

In these circumstances, income policy is whistling up the wind, as the Dutch found out in 1963. The price system *may* shift the character of investment to greater labor saving, though there is no evidence that the French planners recognized what was happening in this respect in the 1950s, and reshaped their planning in this direction which the German market economy seems to have pursued of its own accord in response to changes. There is more and more talk of the need for planning income distribution, which is normally a function of factor pricing and macroeconomic policy, but little discussion of what may be involved. To plan high rates of growth and high profits, when the rate of innovation, though high (CEPREL, 1963, p. 90), is autonomous and labor is limited is to overdetermine the system. It is well to say that you plan for no increase in leisure, but the Régie Renault will give an extra week's vacation, going from three to four, if a tight market gives labor the bargaining power (Despres, 1963, p. 52). Labor's refusal to enter into the Planning Commissariat on a substantial scale, so as to preserve its freedom of action, is a symptom of the problem, rather than a cause.

Evaluation

Is French planning a success? To ask the question is to pose another: By what criteria should it be judged? Wickham deliberately rejects the rate of growth, and chooses instead stability of the growth rate, conformity of the results with targets, and investment productivity (1963, p. 344). It is hard to see the basis for the first; moderate success on the second may reflect nothing more than that any plan tends to be self-confirming, without indicating whether any single plan is the best possible plan, or better than total absence of planning. Investment productivity is a function of the rate of technical progress, on the one hand, and of the efficiency of resource allocation, on the other. John Despres claims that the lower capital-output ratio in France than in Britain, with roughly the same rate of investment in each, is proof of more efficient allocation of resources under planning because Britain and France presumably use the same industrial technology (1963, pp. 59–61). But this leaps too many steps. With identical allocation and identical technologies, Britain could have a higher capital-output ratio than France because of less efficient firms: There is evidence to suppose that in the nationalized industries such as railroads, coal, and possibly electricity, this has been the case. Or with firms of equal efficiency, and identical technologies, the British aggregate capital-output ratio could be higher because the composition of final investment demand was different. Or with labor relatively scarcer in Britain than in France, it is only normal to expect a higher capital-output ratio. More likely, in my judgment, the technologies have not been identical.

France started the postwar period with a large technological lag (United Nations, Chap. VI, p. 10). This gap was closed, and French innovative capacity in many lines exceeded that of its neighbors. certainly of Britain. To what extent this change in productivity was a direct result of planning and of the activity of the horizontal Commission for Productivity, which was brought into the Planning Commissariat from the Productivity Agency, and to what extent it was an independent phenomenon can be debated. Certainly beginning with the Second, the various plans placed great stress on increasing productivity, including special productivity loans and special financing for the production of new products (*ibid.*, p. 13). But the case can be made that productivity increases bulked larger in the implementation than in the planning. Innovation is a consequence of technical virtuosity, which is unpredictable. It does not proceed at an even pace which can be projected. Planners can provide exhortation to technical progress and incentives, but they cannot summon it into being or claim credit for its time path. The French economy used its scarce resources with great efficiency—more efficiency than almost any other country in Western Europe in the postwar period (United Nations, Chap. II, pp. 14, 20, 33, Chap. VI, p. 7) but whether this is owing to *ex ante* planning or empirical management is impossible to determine, with the latter favored by the record.

In short, it is easy to give French planning high marks for macrodynamic success, although the growth of the economy seems to have followed more an Abramovitz-Solow model of growth through technological progress than a Harrod-Domar model based on investment. The record on macrostability is so-so—despite Wickham's claim—with no serious setbacks, but with difficulties in the balance of payments and income distribution and with need for macroeconomic policy alongside and occasionally opposed to planning goals. On the microeconomic front, it is difficult or impossible to devise an adequate test: Bottlenecks were broken during the early days, but entrepreneurs ignored the plan's attempt to apply the brakes in some fields, and seem not, as yet, to have suffered from it. Perhaps it is enough to score the macrodynamic success. Planning and growth are associated, even if it be true that causality cannot be established, that growth without planning can be found in other contexts, and perhaps planning without growth. The final question poses itself: Are French planning and its success exportable?

Can French Indicative Planning Be Applied Elsewhere?

The success associated with French planning has established an enormous vogue for it. Belgium adopted planning on the French model in 1959 (CEPES, 1961, pp. 84–94). The establishment of the National Economic Development Council in Britain draws admittedly on the same inspiration. Chancellor Ludwig Erhard in establishing a four-year framework for the annual budget and creating a Council of Economic Advisers felt obliged to uphold "social market economy" and to insist that he was not "pandering to the politico-economical fashion as expressed in the term which by now has become almost a slogan, 'planification' " (Erhard, 1963, p. 14). One German who is now a member of the council, moreover, was prepared to contemplate that the major modifications of the German economic structure, for which he saw a need, would require planning to carry through (CEPES, Giersch, 1961, p. 113). Organizations which had already embraced planning as doctrine were not slow in finding their beliefs confirmed (PEP, 1961; Private Planning Association, 1963). Perhaps the most persuasive voice lifted in its behalf was that of a Washington economic journalist who urged its application in the United States (Nossiter, 1964, Chap. 8).

There is no lack of disagreement. Bankers, businessmen, statesmen, and economists do not hesitate to point out that French planning is more French than planning: Where it abjures price and wage controls, import quotas, consumer rationing or government allocations of labor, materials, and capital, and involves a minimum of interference with private decision-making in the economy, it may not be planning at all (McLaughlin, 1963, p. 1). Economists in the less developed countries who are inordinately impressed with indicative planning have not questioned whether the primary impetus for French growth did not arise from the backlog of technological advancement into an economy with highly developed skills and institutions, and have shown too little awareness of the tradition of centralization and close contact between government and business technicians in France (Collado, 1963, p. 6). More generally, the French system may be seen as squarely in the mainstream of a tradition of cooperation between government and industry which goes back at least to the time of Colbert (Downie, 1963, p. 5). In his presidential address to the American Economic Association, Mason concludes that French planning is irrelevant to the United States (1963, p. 12).

But the relevance of French-type planning to the developed countries of the West which have competition, appetite for income, capacity for innovation and resource reallocation, and reasonably effective monetary and fiscal policies is perhaps not the issue. Where these ingredients of growth are not present, or only latent, some mechanism is needed to call them into being or into action, and planning is as good a mechanism as any other—perhaps better. Whether French-type planning can evoke growth in countries where the listed attributes are missing, as in the less developed countries, or have lost their cutting edge, as in Britain, is another question. The French economy in 1946, poised on the brink of resurgence, could use the stimulus of planning to great effect.

But planning is not the all-purpose weapon. However much it may have contributed to French growth, it has failed to cope with the problem of stability, or rising costs and prices, or income distribution, problems to which the United States must give heed along with growth. Moreover, growth seems to have made progress lately in the United States, as in Germany, though the circumstances of the two economies differ in important respects and it is dangerous to reach hard and fast conclusions on the basis of the response to the 1964 tax cut.

The important issue, to which reference has already been made, is the extent to which intervention in the economy occurs at the level of the firm, and with regard to the specific results of action rather than conformity to general rules of conduct. This is the old issue of "rules vs. authority" in monetary policy. In the United States there will be economic bills of attainder, administrative rulings, appeals to public opinion, pressure, or even laws designed to produce a particular result in a particular situation. They will be exceptional under present circumstances. If indicative planning is adopted, the role of authority will perhaps not expand much, but the likelihood is that it would expand some. The extent of such intervention in France is greater now and likely to increase. When planning gives rise to growth which makes competition more feasible (Sheahan, 1963, p. 242), we have the best of all possible worlds. Where planning is primarily intervention, the gain is less evident. It can be argued that intervention in France has been efficient economically. It can also be argued that it is becoming increasingly regrettable politically.

References

Ambassade de France, Service de Presse et d'Information, *France and Economic Planning,* New York, April 1963.

André, René P., "Government Action and French Exports," unpublished M.S. thesis, Massachusetts Institute of Technology, 1964.

Bauchet, Pierre, *Prioriété Publique et Planification,* Paris, 1962.

———, *Economic Planning: The French Experience,* New York, 1964 (translated from the revised French edition, 1962; first French edition, 1958).

Baum, W. C., *The French Economy and the State,* Princeton, N.J., 1958.

Bolle, Pierre, "Deux études de cas—Pierrelatte et le Tunnel du Mont Blanc," unpublished paper given at Colloque sur la Planification under Fondation Nationale de Sciences Politiques, Institut d'Etudes Politiques de L'Université de Grenoble, Mai 2–4, 1963.

CEPES (Centre Européen pour le Progrès Économique et Social), *French and Other National Economic Plans for Growth,* report of a conference held under auspices of the French group in Paris, June 1962, distributed in United States by Committee on Economic Development, Washington, D.C., June 1963.

CEPREL (Centre d'Étude de la Prospection Économique à Moyen et Long Termes), *Bulletin du CEPREL,* December 1963.

Collado, E. G., "Economic Development through Private Enterprise," *Foreign Affairs,* July 1963.

De Gaulle, Charles, "President De Gaulle Holds Eighth Press Conference," Ambassade de France, *Speeches and Press Conferences,* July 29, 1943.

Despres, John, "Planning and French Economic Growth," unpublished honors thesis, Harvard College, March 1963.

Downie, J., "What Can the U.S. Learn from Foreign Experience," paper prepared for a University of California Conference on Unemployment and the American Economy, at Berkeley, Cal., April 18–20, 1963 (mimeographed).

Eklund, Per, "French Indicative Planning and Uncertainty," unpublished paper at the Fletcher School of Law and Diplomacy, April 1964.

Erhard, Ludwig, government statement made by the chancellor on October 18, 1963, *News from the German Embassy,* Washington, D.C., October 25, 1963.

Frisch, Ragnar, "On the Need for Forecasting a Multilateral Balance of Payments," *American Economic Review,* September 1947, pp. 535–51.

R. C. Geary, ed., Future in Figures, Amsterdam, 1962.

Giscard d'Estaing, Valery, Minister of Finance, address at Harvard University Graduate School of Business Administration, June 8, 1863, Ambassade de France, *French Affairs,* June 8, 1963.

Hacket, John, and Hackett, Anne-Marie, *Economic Planning in France,* Cambridge, Mass., 1963.

Johnson, Harry G., "Economic Growth and Economic Policy," *J. S. McLean Memorial Lecture,* Ontario Agricultural College, Guelph, February 1963.

Johnstone, Allan W., *United States Direct Investment in France: An Investigation of the French Charges,* Cambridge, Mass., 1965.

Kindleberger, Charles P., "The Postwar Resurgence of the French Economy," *In Search of France,* eds. Stanley Hoffman *et al.,* Cambridge, Mass., 1963.

Maddison, Angus, *Economic Growth in the West,* New York, 1964.

Malmgren, H. B., "Information, Expectations and the Theory of the Firm," *Quarterly Journal of Economics,* August 1961.

Marczewski, J., "The Fourth French Plan (1962–1965)—'Conjuncture' and Planned Development," *Economie Appliquée,* June 1962.

Marjolin, Robert, "Do We Need a Plan for Europe?" *E. E. Bulletin,* July 1962.

Massé, Pierre, "French Economic Planning," address given in London, April 22, 1961, at symposium organized by National Institute of Economic and Social Research, Ambassade de France, *French Affairs,* December 1961.

——— in Preface to François Perroux, *Le IVe Plan Français,* 1st ed., Paris, 1962.

———, speech to the Superior Council of the Plan, July 3, 1963, reported in "La Vie Economique," *Le Monde,* July 4, 1963.

McKinnon, R. I., "Optimum Currency Areas," *American Economic Review,* September 1963.

McLaughlin, W. Earle, "Plan or No Plan—or Un-Plan," mimeographed speech before Canadian Manufacturers Association, Toronto, Ontario, June 3, 1963.

Mundell, Robert, "A Theory of Optimum Currency Areas," *American Economic Review,* September 1961.

Nossiter, Bernard, *The Mythmakers, An Essay on Power and Wealth,* Boston, 1964.

OECD (Organization for Economic Cooperation and Development), *Government Incentives to Encourage Private Investment,* Paris, 1962.

Perroux, François, *Le IVe Plan Français,* Paris, 1962.

PEP (Political and Economic Planning), "Economic Planning in France," *Planning,* August 14, 1961.

Private Planning Association of Canada: L. A. Skeoch and David C. Smith, *Economic Planning: The Relevance of West European Experience for Canada,* Montreal, 1963.

Reuss, Frederic, *Fiscal Policy for Growth Without Inflation: the German Experiment,* Baltimore, 1963.

Royal Institute for International Affairs, *New Directions for World Trade,* London, 1964 (offset edition).

Sheahan, John, *Promotion and Control of Industry in Postwar France,* Cambridge, Mass., 1963.

Sohmen, Egon, "Competition and Growth: The Lesson of West Germany," *American Economic Review,* December 1959.

Streeten, Paul, in review of John Sheahan, "Promotion and Control of Industry in Postwar France," *American Economic Review,* December 1963.

Swann, D., and McLachlan, D. L., "Programming and Competition in the European Communities," *Economic Journal,* March 1964.

United Nations, Economic Commission for Europe, *Some Factors in Economic Growth in Europe During the 1950s,* Geneva, 1964.

Wallich, Henry C., *Mainsprings of German Revival,* New Haven, Conn., 1955.

Wellisz, S., "Economic Planning in the Netherlands, France and Italy," *Journal of Political Economy,* June 1960.

Wickham, S., "French Planning: Retrospect and Prospect," *Review of Economics and Statistics,* November 1963.

COMMENT

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My task is to discuss Professor Kindleberger's "catalogue raisoné" of writings and opinions on French planning. The catalogue is comprehensive and well balanced; so a critical review (suggesting, perhaps, some additional entries or correcting minor distortions) would be rather dull. At the end I would have to agree with Professor Kindleberger that after a careful weighing of experts' opinions on French planning, it is not possible to decide what effects planning had on the French economy. The catalogue is excellent, but the task of cataloguing proved to be futile.

Why is it that experts cannot agree on what French planning does? The main reason is, I think, that it is virtually impossible to make meaningful comparisons between the planned French economy and an unplanned "control group." A comparison between the preplan and the planned French economy is meaningless because too many other changes have occurred in the intervening period. Comparisons between planned French development and the development of other West European countries is also unlikely to bring to light the effects of planning. Although France's "planned development" is frequently contrasted with West Germany's "free market growth," the differences between the two systems are much less striking than the similarities. As Angus Maddison said, all the West European countries "in their various ways are free enterprise or neo-capitalist economies, with most production activities in private hands. . . . The state modifies rather than determines the flow of income. The economy [of Western Europe] is a managed market economy." [1] France, West Germany, and the other West European countries are closely connected by trade; they share a common technology and have comparable factor endowments. As a consequence it does not come as too much of a surprise that the French "economic miracle" looks so much like the German or the Italian "economic miracle." [2] These "miracles" provide useful ammunition to the advocates of the various systems, but they are of little help to the scholar who tries to make an appraisal of the comparative virtues of the institutional frameworks.[3]

The alternate approach, that of asking "How well do the French plans come out?" does not seem much more promising at first sight. The difficulties of arriving at a conclusion on the basis of internal evidence are well summed up by Massé:

> . . . the Plan is in principle normative, the projection [on which the plan is based] is partly normative and partly predictional. Plan and projection not being identical, the invalidation of the projection does not necessarily mean failure for the plan. This is why the question "To what extent are the French plans implemented" is *ambiguous*. This ambiguity cannot be removed simply by comparing projection with reality. Falling short in relation to the projection is not in itself significant. In measuring the success or failure of the Plan, one must assess, to a certain extent subjectively, the underlying significance of falling short in any particular way.[4]

Taken at its face value, such a statement made by a man who heads the French Planning Commissariat and who combines high technical skills with excellent policy judgment should be enough to discourage any inquiries into the virtues of French planning. Since we cannot make valid international comparisons and since we cannot judge plans by their results, how are we to know (short of accepting the efficacy of French

[1] Angus Maddison, *Economic Growth in the West,* New York, 1964, p. 15.

[2] See Josselyn Hennessy, Vera Lutz, and Giuseppe Scimone, *Economic "Miracles,"* London, 1964.

[3] Of course there exist differences among the institutions of West European countries, as well as differences in economic performance, but if one takes all the important factors under consideration the difference between "planning" and "no planning" is swamped by differences in capital endowment, skills, rates in population growth, external burdens, etc.

[4] Pierre Massé, "The French Plan and Economic Theory," *Econometrica,* April 1965, p. 267.

planning as an article of faith) what French planning does to the economy?

Actually by telling us how not to judge French plans Massé points to a possible method of analysis, which is largely yet to be undertaken.

The first question which may be asked is how well the French planners foresee the development of the economy. For purposes of this inquiry it is irrelevant whether the goodness of the "fit" results from correct forecasting or from plan enforcement. The results of an inquiry which used Theil's inequality coefficients as a measure of fit showed that the "forecast for 1963" implicit in the Fourth French Plan [5] gave a substantially better fit than a GNP blowup, a multiple-regression forecast, and a projection of the 1959 input-output table.[6] The evidence is as yet limited, but further evidence should throw light on the performance of French planners as "forecasters."

Assume for the moment that we have succeeded in establishing the degree of success and of failure of French planners as forecasters. To what extent is the correctness of the forecasts due to the exact nature of the previsions, and to what extent is it ascribable to plan enforcement? To answer this question one must seek to determine the degree of control which the government exercises over plan fulfillment in the different sectors of the economy. If different sectors are equally easy to forecast, then a correlation between the closeness of adherence to the plan and the degree of planners' control gives a measure of plan enforcement.

The primary tool of control over plan enforcement in France consists of controls over financial means, including the granting of preferential credit terms in exchange for cooperation with the planners. In the inquiry referred to above a rank correlation of sixteen sectors of the French economy in terms of (1) plan fulfillment as compared with (2) the degree of reliance on government funds for investment purposes, and (1) plan fulfillment as against (3) the degree of self-financing has yielded rank correlation coefficients of 0.64 and −0.59 respectively, both of which were significant on the 5 per cent level.[7] These results

[5] The Fourth Plan takes 1959 as its starting point and contains a projection for 1965, the plan's final year. At the time of the analysis, the 1965 results were not available; hence, a forecast for 1963 was prepared by interpolating between the initial year of the plan and the final figures. The alternate forecasts were prepared on the basis of the same data as the plan.

[6] Armand Van Nimmen, "French Planning: An Essay in Evaluation," paper presented at International Economics Workshop, Columbia University, Spring 1965 (mimeographed).

[7] The "predictability" of the various sectors was checked by comparing forecasts and forecast outcomes for the corresponding sectors in various European countries; no significant correlation was obtained between "predictability" and plan fulfillment in France.

do not constitute a proof positive of plan enforcement, but they point to a method for the elimination of the mystery surrounding French planning.

A third question, perhaps the most important of all, concerns the effects of the plans on the economy. If planning influences resource allocation, we should be able to compare the results of the sectors which closely fulfill the plans with those which deviate from the plans—and to observe differences. We may assume, for instance, that the plan strives to achieve a Pareto-optimal resource distribution at the end of the planning period. If the plan were correctly formulated, and if all branches of industry conformed to the plan, there would be equal marginal rates of return in all the industrial branches. Upward deviations from the plan would result in a lower, and downward deviations in a higher, marginal rate of return. The theoretical conclusions can be translated into a testable hypothesis, all the more easily since France has a well-developed stock market. Alternate formulations of the goals of planning can also be made, and they can be translated into empirically testable propositions. Unfortunately, the data available to the public are so highly aggregated that they do not lend themselves to this sort of analysis. The answer-seeker will have to fight his way into the commissariat's archives where (rumor has it) there is a vast treasure of detailed information.

The results of any quantitative investigation will have to be tempered by good judgment. The commissariat does valuable work "in opposing state intervention that distorts the normal price fixing mechanism without due reason" [8] and in fighting against irrational meddling by policymakers. On the other hand, the commissariat does a substantial amount of meddling on its own. Moreover, while the widespread participation in the work of specialized commissions contributes to the diffusion of important economic information, it also gives an opportunity to business to form exclusive arrangements and to monopolize the economy. Such factors cannot readily be quantified, but they must be taken into account in an over-all appraisal of French planning. Yet the core of an appraisal must consist of quantitative analysis. An inquiry which limits itself to literary weighing of possible advantages and of possible disadvantages of planning cannot yield fruitful conclusions, no matter how well informed the inquirer. Professor Kindleberger has most skillfully weighed all the literary economists' opinions, yet all that he (and we) have learned is that opinions differ.

[8] Massé, *Econometrica,* April 1965, p. 273.